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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No. 228/213  
Anticipated Class 536-024.500

The Commissioner of Patents and Trademarks  
Washington, DC 20231

This is a request for filing a

☒ Continuation

☐ Divisional

application under 37 CFR § 1.60, of pending prior application Serial

No. 07/965,411, filed August 9, 1993, of Fritz Eckstein, Wolfgang Pieken, Fritz Benseler, David B. Olsen, and David M. Williams  
for

MODIFIED RIBOZYMES.

1. ☒ Enclosed is a true paper copy of the prior application, including the oath or declaration, as originally filed.

2. ☒ The filing fee is calculated below:

PRIOR CLAIMS AS FILED, LESS ANY CLAIMS CANCELLED BY AMENDMENT BELOW

For	Number Filed	Number Extra	Rate	Basic Fee
				<u>\$770.00</u>
Total claims. . . . .	-20 =		X \$ 22.00 =	\$ 770.00
Independent claims. . .	- 3 =		X \$ 80.00 =	\$ .00
Multiple dependent claim presented . . .			+ \$260.00 =	\$ <u>.00</u>
				\$ 770.00

TOTAL FILING FEE . . . . . \$ 770.00

☒ The Commissioner is hereby authorized to charge all filing fees under 37 CFR § 1.16 and § 1.17 associated with this communication which may be required or credit any overpayment to Deposit Account No. 12-2475. A triplicate copy of this sheet is enclosed.

☐ A verified statement that this filing is by a small entity

☐ is attached

☐ has been filed in the parent application and such status is still proper and desired (37 CFR 1.28(a))

Filing fee calculation (50% of above) \_\_\_\_\_

1/ "Express Mail" mailing label number EM104 357 161 US  
Date of Deposit September 24, 1997

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR § 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231

CARA GRIFONE

*Cara Grifone*

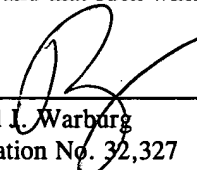
(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

5. ☒ A check in the amount of \$770.00 is enclosed.
6. ☐ Cancel claims \_\_\_\_\_.
7. ☒ Amend the specification by inserting before the first line the sentence: -- This is a ☒ continuation ☐ division of application Serial No. 07/965,411, filed August 9, 1993 hereby incorporated by reference in its totality (including drawings). --  
*now U.S. Patent 5,672,695*
8. ☐ Transfer the drawings from the prior application to this application and abandon said prior application as of the filing date accorded this application. A duplicate copy of this sheet is enclosed for filing in the prior application file.
9. ☐ New formal drawings are enclosed.
10. ☒ The prior application is assigned to MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN E.V.
11. ☒ The power of attorney in the prior application is to Richard J. Warburg, Esq., Reg. 32,327, LYON & LYON, First Interstate World Center, 633 West Fifth Street, Suite 4700, Los Angeles, California 90071-2066
- a. ☐ The power appears in the original papers in the prior application, dated April 3, 1992.
- b. ☒ As the power does not appear in the original papers, a copy of the power in the prior application is enclosed.
- c. ☐ A new power of attorney has been executed to \_\_\_\_\_.
- d. ☒ Kindly recognize as associate attorney
- Roland N. Smoot, Reg. No. 18,718; Conrad R. Solum, Jr. Reg. No. 20,467; James W. Geriak, Reg. No. 20,233; Robert M. Taylor, Jr., Reg. No. 19,848; Samuel B. Stone, Reg. No. 19,297; Douglas E. Olson, Reg. No. 22,798; Robert E. Lyon, Reg. No. 24,171; Robert C. Weiss, Reg. No. 24,939; William E. Thomson, Jr., Reg. No. 29,719; Richard E. Lyon, Jr., Reg. No. 26,300; John D. McConaghy, Reg. No. 26,773; William C. Steffin, Reg. No. 26,811; Coe A. Bloomberg, Reg. No. 26,605; J. Donald McCarthy, Reg. No. 25,119; John M. Benassi, Reg. No. 27,483; James H. Shalek, Reg. No. 29,749; Allan W. Jansen, Reg. No. 29,395; Robert W. Dickerson, Reg. No. 29,914; Roy L. Anderson, Reg. No. 30,240; David B. Murphy, Reg. No. 31,125; James C. Brooks, Reg. No. 29,898; Jeffrey M. Olson, Reg. No. 30,790; Steven D. Hemminger, Reg. No. 30,755; Jerrold B. Reilly, Reg. No. 32,293; Paul H. Meier, Reg. No. 32,274; John A. Rafter, Jr., Reg. No. 31,653; Kenneth H. Ohriner, Reg. No. 31,646; Mary S. Consalvi, Reg. No. 32,212; Bradford J. Duft, Reg. No. 32,219; Suzanne L. Biggs, Reg. No. 30,158; F.T. Alexandra Mahaney, Reg. No. 37,668; Jeffrey W. Guise, Reg. No. 34,613; Sheldon O. Heber, Reg. No. 38,179; Anthony C. Chen, Reg. No. 38,673; Charles S. Berkman, Reg. No. 38,077; and Sheryl R. Silverstein, Reg. No. 40,812 of LYON & LYON, 633 West Fifth Street, Suite 4700, Los Angeles, California 90071-2066 telephone (619) 552-8400.
12. ☐ A preliminary amendment is enclosed.
13. ☒ I hereby verify that the attached papers are a true paper copy of prior application Serial No. 07/965,411, as originally filed on August 9, 1993.
14. ☒ An Information Disclosure Statement is enclosed. All art referred to therein is present in the parent application 07/965,411.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by Code and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.

9/20/97  
Date

  
Richard J. Warburg  
Registration No. 32,327

NATIONAL APPLICATION (U.S.)

Please acknowledge receipt of the following by  
affixing hereon the Patent Office date stamp  
and returning this card to our office.

Amendment re: MAX-PLANCK-GESELLSCHAFT ...

Serial No:

Filed:

December 28, 1992

For:

MODIFIED RIBOZYMES

97/365411

Attorney:

Docket No:

O.A. Date:

Enclosures:

RJWarburg

LYON & LYON

195/036 (RPI/Eckstein)

13 Rec'd PCT/PC 28 DEC 1992

REQUEST FOR FILING NATIONAL PHASE APPL.  
STATEMENT; INFORMATION SHEET; PCT  
REQUEST FORM (4 sheets); AMENDMENT to  
OFFICIAL COMMUNICATION (dated 9/1/92)  
PCT PUBLICATION (and corrected sheets)  
EXECUTED DECLARATIONS; ASSIGNMENT

0399697.0349

195/036  
Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: )  
)  
MAX-PLANCK-GESELLSCHAFT ZUR )  
FORDERUNG DER WISSENSCHAFTEN )  
E.V. )  
)  
Serial No. PCT/EP91/01811 )  
)  
Filed: 23 SEPTEMBER 1991 ) Los Angeles, CA 90017  
For: MODIFIED RIBOZYMES

REQUEST FOR FILING NATIONAL PHASE APPLICATION

December 28, 1992

Honorable Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

Sir:

This is a request for filing a national phase application of P.C.T. Application No. PCT/EP91/01811 filed on September 23, 1991, of Fritz Eckstein, Wolfgang A. Pieken, Fritz Benseler, David B. Olsen, David M. Williams, Olaf Heidenreich, entitled MODIFIED RIBOZYMES, claiming priority from PCT/EP90/01731, filed October 12, 1990.

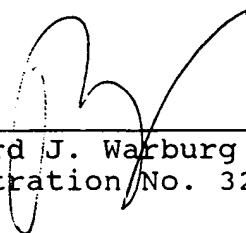
1. Enclosed is a true copy of the above P.C.T. application with the required statement.
2. The Commissioner is hereby authorized to charge all filing fees to Deposit Account No. 12-2475 and any additional

195/036  
Patent

fees which may be required or to make any credits to Account No.  
12-2475. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

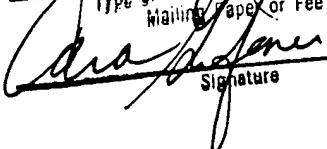
LYON & LYON

  
\_\_\_\_\_  
Richard J. Warburg  
Registration No. 32,327

611 West Sixth Street  
Suite 3400  
Los Angeles, CA 90017  
(213) 489-1600

"Express Mail" mailing label number HB43321507945  
Date of Deposit December 28, 1992

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der 37 CFR 1.19 on the date indicated above and is  
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CARA GIFFONE  
Type or Printed Name of Person  
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Signature

#3 J.P.  
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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>5</sup> :</b>  <b>C12N 9/00, 15/00, A61K 31/00</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 92/07065</b>  <b>(43) International Publication Date:</b> 30 April 1992 (30.04.92)
<b>(21) International Application Number:</b> PCT/EP91/01811 <b>(22) International Filing Date:</b> 23 September 1991 (23.09.91)  <b>(30) Priority data:</b> PCT/EP90/01731 12 October 1990 (12.10.90) EP <i>(34) Countries for which the regional or international application was filed:</i> AT et al.  <b>(71) Applicant (for all designated States except US):</b> MAX-PLANCK-GESELLSCHAFT ZUR FÖRDERUNG DER WISSENSCHAFTEN E.V. [DE/DE]; Bunsenstraße 10, D-3400 Göttingen (DE).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> ECKSTEIN, Fritz [DE/DE]; Holundersteg 6, D-3400 Göttingen (DE). PIEKEN, Wolfgang, A. [DE/DE]; Auf der Wessel 22, D-3400 Göttingen (DE). BENSELER, Fritz [DE/DE]; Heinrich-Warnecke-Straße 4, D-3400 Göttingen (DE). OLSEN, David, B. [US/US]; Merck, Sharp & Dohme, Research Laboratory, WP 42-300, Westpoint, PA 19486 (US). WILLIAMS, David, M. [GB/DE]; Wiesenstraße 15, D-3400 Göttingen (DE).		<b>(74) Agents:</b> WEICKMANN, H. et al.; Postfach 86 08 20, Möhlstrasse 22, D-8000 München 80 (DE).  <b>(81) Designated States:</b> AT, AT (European patent), AU, BB, BE (European patent), BF (OAPI patent), BG, BJ (OAPI patent), BR, CA, CF (OAPI patent), CG (OAPI patent), CH, CH (European patent), CI (OAPI patent), CM (OAPI patent), CS, DE, DE (European patent), DK, DK (European patent), ES, ES (European patent), FI, FR (European patent), GA (OAPI patent), GB, GB (European patent), GN (OAPI patent), GR (European patent), HU, IT (European patent), JP, KP, KR, LK, LU, LU (European patent), MC, MG, ML (OAPI patent), MN, MR (OAPI patent), MW, NL, NL (European patent), NO, PL, RO, SD, SE, SE (European patent), SN (OAPI patent), SU*, TD (OAPI patent), TG (OAPI patent), US.  <b>Published</b> <i>With international search report.</i>
<b>(54) Title:</b> MODIFIED RIBOZYMES  <b>(57) Abstract</b>  The present invention refers to an RNA molecule with catalytic activity comprising at least one modified nucleoside, wherein the hydroxy group at the 2'-position of the ribose sugar is replaced by a modifier group, selected from halo, sulfhydryl, azido, amino, monosubstituted amino and disubstituted amino groups, a process for the preparation of modified RNA molecules and the use of modified RNA molecules as therapeutic agents and biocatalysts.		

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# + DESIGNATIONS OF "SU"

Any designation of "SU" has effect in the Russian Federation. It is not yet known whether any such designation has effect in other States of the former Soviet Union.

## FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

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## IDENTIFICATION OF THE INTERNATIONAL APPLICATION

**International Filing Date**

23 September 1991 (23.09.91)

MAX-PLANCK-GESELLSCHAFT ZUR FÖRDERUNG DER WISSENSCHAFTEN E.V.  
ECKSTEIN, Fritz, et al.

The applicant, in respect of the above-identified international application, is notified that an applicant/inventor for the US only, HEIDENREICH, Olaf, has inadvertently been overlooked by the International Bureau.

The International Bureau (WO) shall publish a correction in Section II of PCT Gazette No. 15/1992 to be published on 11 July 1992 (11.07.92).

A correct version of the front page of the corresponding PCT Pamphlet will be published on the same date and communicated to the designated Offices, pursuant to PCT Article 20.

A copy of this notification has been sent to the receiving Office (RO/EP), to the International Searching Authority (ISA/EP), to the designated Office concerned (DO/US), and to the International Preliminary Examining Authority (IPEA/EP).

THE INTERNATIONAL BUREAU OF THE WORLD INTELLECTUAL PROPERTY ORGANIZATION

Authorized Officer

J.D. Hawkins